

IN THE CLAIMS

1-24. (Canceled).

25. (Currently Amended) A method for splicing digitally encoded data streams, including an old data stream and a new data stream, comprising:

(a) without the use of a clock reference signal, modifying a current timing reference of the new data stream to correspond with a splice-out point of the old data stream and a splice-in point of the new data stream, thereby forming a modified new data stream timing reference, wherein said modified new data stream timing reference further corresponds with a timing gap between a first decoding time for decoding a last frame of the old data stream and a second decoding time for decoding a first frame of the new data stream; and

(b) aligning a portion of the new data stream with a portion of the old data stream according to said modified new data stream timing reference, such that a transition from the old data stream to the new data stream, during playback, will be substantially imperceptible.

26. (Previously Presented) The method according to claim 25, wherein determining said modified new data stream timing reference includes:

(i) determining said current timing reference of the new data stream;

(ii) determining a delay between said current timing reference and a current decoding time of a frame of the new data stream;

(iii) determining a new decoding time of said frame of the new data stream that corresponds with a sum of said current decoding time and an inter-frame delay between a decoding time for decoding a last frame of the old data stream and a decoding time for decoding a first frame of the new data stream; and

(iv) determining said modified new data stream timing reference as said new decoding time of step (iii) minus said delay of step (ii).

27. (Currently Amended) The method according to claim 25, wherein determining said modified new data stream timing reference includes:

(i) determining a program clock reference of a first packet of said new data stream;

- (ii) determining a delay between transmission of a first sequence header of said new data stream and a first decode time stamp DTS of a first frame of said new data stream;
- (iii) determining a continuous DTS as a sum of said first DTS and an inter-frame delay; and
- (iv) determining a new data stream real-time transmit time as said continuous DTS of step (iii) minus said delay of step (ii).

28. (Previously Presented) The method according to claim 25, wherein said aligning in step (b) sets a start time for transmitting the portion of the new data stream that corresponds with a decoding time for decoding the portion of the old data stream.

29. (Previously Presented) The method according to claim 25, wherein said aligning in step (b) sets a start time for a decoder buffer to begin receiving the portion of the new data stream that corresponds with a decoding time for decoding the portion of the old data stream.

30. (Currently Amended) The method according to claim 25, further comprising:
(a)(d) detecting a decoder buffer overflow condition that will result from said splicing, if the data streams are transmitted; and
(b)(e) correcting said overflow condition.

31. (Currently Amended) A method for splicing digitally encoded data streams, including an old data stream and a new data stream, comprising:

- [i] determining a splice-out point of the old data stream;
- [ii] determining a splice-in point of the new data stream;]
- [iii] without the use of a clock reference signal, modifying a current timing reference of the new data stream to correspond with [the] a splice-out point of the old data stream and the splice-in point of the new data stream, thereby forming a modified new data stream timing reference; and
- [iv] aligning a portion of the new data stream with a portion of the old data stream according to said modified new data stream timing reference, such that a transition from the old data stream to the new data stream, during playback, will be substantially imperceptible.

32. (Currently Amended) The method according to claim [31] 150, wherein the step [(ii)] of determining the splice-out point includes, if an initial frame of the new data stream is of a type that is ordinarily decoded with reference to decoding of a prior frame, then modifying the new data stream to remove said reference.

33. (Previously Presented) The method according to claim 32, wherein said frame type is selected from a group consisting of B-frames and P-frames, and wherein said step of modifying comprises closing an open group of pictures GOP.

34. (Currently Amended) The method according to claim [31] 150, wherein said data streams include video and audio data, wherein the step [(iii)] of determining the splice-out point includes determining a video splice-out point and an audio splice-out point, and wherein step (iv) includes determining a video splice-in point and an audio splice-in point.

35. (Currently Amended) The method according to claim [31] 150, wherein said splice-out point [of step (i)] is determined within a user-selectable portion of the old data stream.

36. (Currently Amended) The method according to claim [31] 150, wherein said splice-in point [of step (ii)] is determined within a user-selectable portion of the new data stream.

37. (Currently Amended) The method according to claim [31] 150, wherein said splice-out point [of step (i)] is user-selectable.

38. (Currently Amended) The method according to claim [31] 150, wherein said splice-in point [of step (ii)] is user-selectable.

39. (Currently Amended) A method for splicing digitally encoded data streams, including an old data stream and a new data stream, comprising:

(i) determining a first source for the old data stream and a second source for the new data stream;

(ii) modifying a current timing reference of the new data stream to correspond with a splice-out point of the old data stream and a splice-in point of the new data stream, thereby forming a modified new data stream timing reference; and

(iii) without the use of a clock reference signal, aligning a portion of the new data stream with a portion of the old data stream according to said modified new data stream timing reference, such that a transition from the old data stream to the new data stream, during playback, will be substantially imperceptible.

40. (Previously Presented) The method according to claim 39, wherein said first and second sources include source types selected from a group comprising a storage device, a satellite receiver, a cable receiver, a network, an audio source, a video source and an encoder.

41. (Previously Presented) The method according to claim 40, wherein said first source and said second source are of a same source type.

42. (Currently Amended) A method for splicing digitally encoded data streams, including an old data stream and a new data stream, comprising:

(a) without the use of a clock reference signal, modifying a current timing reference of the new data stream to correspond with a splice-out point of the old data stream and a splice-in point of the new data stream, thereby forming a modified new data stream timing reference, wherein at least one of said data streams is MPEG encoded; and

(b) aligning a portion of the new data stream with a portion of the old data stream according to said modified new data stream timing reference, such that a transition from the old data stream to the new data stream, during playback, will be substantially imperceptible.

43. (Canceled).

44. (Previously Presented) The method according to claim 42, wherein step (a) is followed by transmitting a portion of the old data stream.

45. (Previously Presented) The method according to claim 42, wherein step (a) is followed by transmitting a portion of the old data stream.

46-71. (Canceled)

72. (Previously Presented) A method according to claim 71 wherein said step of setting includes: if, upon transmission of said old and new data streams, said new data stream would begin to be received by a decoder before the decoder would have received all of said splice-out portion, then setting a transmission delay parameter for said new data stream.

73-149. (Canceled)

150. (New) The method according to claim 31, including the steps of:
determining a splice-out point of the old data stream; and
determining a splice-in point of the new data stream.